## The Causes of Changes in the Rates of Value Added Tax in the Czech Republic and their Possible Impacts<sup>1</sup>

Příčiny změn v sazbách daně z přidané hodnoty v České republice a jejich možné reflexe

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#### **Abstract**

Value added tax is the most harmonized tax within the single internal market of the European Communities. Although Community law defines the basic constraints of the VAT legislative form in the Member States, Directive No. 2006/112/EC on the common system of value added tax, as amended, leaves a certain freedom for the Member States. One of the most visible characteristics of VAT is its rates, which are – while maintaining the established minimum limits – fully within the responsibility of Member States.

This paper outlines - on the example of the Czech Republic and the VAT changes effective as at 1/1/2010 – the possibility of following the internal fiscal interests of the Czech Republic in the context of the economic crisis and the obligation to implement the directives of the Council.

The aim of this text is to indicate, along with the increase of the public budget revenues, the further effects of changes in VAT rates on the consumer basket (and thus the price level) and the structure of household expenditures.

## **Keywords**

value added tax (VAT), VAT rates, European Union, Community law, national interests, consumer basket, price level

#### JEL Classification

H20, D12

#### **Abstrakt**

Daň z přidané hodnoty je pro fungování jednotného vnitřního trhu Evropských společenství nejvíce harmonizovanou daní. I když komunitární právo vymezuje základní mantinely zákonné úpravy DPH v jednotlivých členských zemích, nechává směrnice Rady 2006/112/EC o společném systému daně z přidané hodnoty, ve znění pozdějších předpisů, oblasti volné působnosti členských států. Jednou z nejviditelnějších charakteristik DPH jsou její sazby, které jsou – při zachování stanovených minimálních hranic – v kompetenci členských států.

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Stať se na příkladu České republiky a úprav DPH v této zemi účinných od 1. 1. 2010 snaží ukázat na sledování vlastních fiskálních zájmů České republiky v kontextu ekonomické krize a při povinnosti implementace směrnic Rady.

Cílem textu je i naznačit další vlivy změn sazeb DPH – mimo zvýšení příjmů veřejných rozpočtů – na spotřební koš (a tím na cenovou hladinu) a strukturu výdajů domácností.

#### Klíčová slova

daň z přidané hodnoty (DPH), sazby DPH, Evropská unie, komunitární právo, národní zájmy, spotřební koš, cenová hladina

## Introduction and objective of the paper

Value added tax (VAT) is often characterized as a general, indirect, turnover, non-cascading tax levied on the end consumption of goods and services. Its development is highly specific and hardly comparable to other taxes. VAT is considered to be a modern, simple tax in its original theory with a great potential for tax yield. Simultaneously, VAT eliminates the tax burden imposed on the taxpayers<sup>2</sup>.

There is one sphere of VAT which has not been clearly solved either in theory or in application – the existence of different VAT rates, or more precisely, the existence of a different number of VAT rates. The common, or rather, supposed practice of the only non-zero VAT rate<sup>3</sup> is accompanied with other lowered rates in many states.

In addition, the EU supports the application of several VAT rates; VAT itself remains the only officially permitted general consumption tax. The sole VAT rate is used in the long term only in Denmark (see Table 1).

The objective of this paper is to illustrate the supra-national (EU) process of the unification of VAT rates using the example of the Czech Republic and to point out the fact that EU Member States have some freedom in determining VAT rates despite the requirement of harmonization. The change of VAT rates has a substantial and relevant influence on the revenues of the public budget and can also be reflected in the change of the price level. The next part of the text is formed by possible methods of the practical investigation of that relation. Together with analyses of national and community law and their comparison, the methods of analogy and deduction were used in this paper.

The structure of the chapters follows the determined objective of this text. The first chapter contains the definition of VAT and its application in EU Member States; the second chapter covers the relative freedom of the EU Member States in determining VAT rates, illustrated by the example of the Czech Republic. In the third chapter, certain associations of VAT with the price level are outlined. The discussion and conclusion summarize the results achieved and show the possible future trends of this issue.

<sup>2</sup> This paper is a partial output of the project no. SP/2010064 within the Student Grant Competition.

<sup>3</sup> See TAIT (1988).

### 1 Value added tax in the European Union

The decision whether to use a single type of indirect tax in the Member States and which indirect taxation system should be used, was clear. The conclusions of a special working group established by the European Commission in 1960 (The EEC Reports on Tax Harmonization) as well as the Fiscal and Financial Committee appointed by the Commission, confirmed<sup>4</sup> that the Member States had to abolish the cumulative tax system of indirect taxation and introduce value added tax. If more forms of indirect tax, including sales tax, were to be maintained, the Member State would have to apply a complicated European system of reciprocal reimbursements in common business. Control of their successful performance would be very difficult, if not impossible, and would be based mainly on mutual trust among the States<sup>5</sup>.

Implementation of the agreement on the uniform application of value added tax was not easy. It took 10 years after the Rome agreements until the First Directive on Value Added Tax No. 67/227/EEC<sup>6</sup> and it took another ten years until the ground-breaking regulation (the Sixth Directive – Directive No. 77/388/EEC).

Despite the significant unification of the tax, some of the ideas and rules that would further facilitate trade among Member States have failed to be fulfilled in practice. These include mainly the adoption of the general principle on the country of origin (which is applied in the modified form only to tourism, with the exception of new means of transport) instead of the predominant principle of the country of consumption. Adoption of the country of origin would also mean uniform VAT rates in all EU Member States.

Table 1: VAT rates in t	the European	Union as at	1/7/2009
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		Tax rates			
Member States	National VAT title	Number of rates	Super reduced (in%)	Re- duced (in%)	Stand- ard (in%)
Austria	Umsatzsteuer	2	-	10	20
Belgium	Belasting over de Toegevoegde; Taxe sur la valeur ajoutée	3	-	6.12	21
Bulgaria	Dank vrchu dabavenata stojnost	2		7	20
Cyprus	Foros Prostithemenis Aksias	3	-	5.8	15
Czech Rep.	Daň z přidané hodnoty	2	-	9	19
Denmark	Merværdiafgiftsloven (Momsloven)	1	-	-	25
Estonia	Käibemaksuseadus	2	-	9	20

<sup>4</sup> According to SCHENK, OLDMAN (2007), on 1/1/2007 a single VAT rate was applied in 51% of the countries; two rates were used in 13% of the countries, 5% of the countries applied four rates and 1% of the countries used five rates.

<sup>5</sup> Resource: Taxation and Customs Union [online].

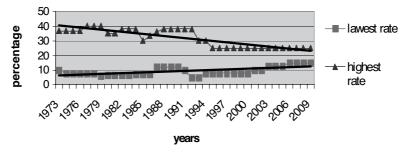
<sup>6</sup> See Škampa (2005), p. 12.

		Tax rates			
Member States	National VAT title	Number of rates	Super reduced (in%)	Re- duced (in%)	Stand- ard (in%)
Finland	Arvonlisävero	3	-	8.17	22
France	Taxe sur la valeur ajoutée	3	2.1	5.5	19.6
Germany	Umsatzsteuer	2	-	7	19
Greek	Foros Prostithemenis Aksias	3	4.5	9	19
Hungary	Általános forgalmi adó	3	-	5.18	25
Ireland	Value Added Tax	3	4.8	13.5	21.5
Italy	Impolsa sul Valore Aggiunto	3	4	10	20
Latvia	Pievienotās vērtíbas nodoklis	2	-	10	21
Lithuania	Pridetines Verte Mokestis	3	-	5.9	21
Luxem- bourg	Taxe sur la valeur ajoutée	4	3	6.12	15
Malta	Taxxa Fuq il-Valur Mizjud; Value Added Tax	2	-	5	18
Netherlands	Belasting over de Toegevoegde	2	-	6	19
Poland	Podatek od towarow i úsluh	3	3	7	22
Portugal	Imposto Sobre o Valor Acrescentado	3	-	5.12	20
Romania	Taxa pe valoarea adaugata	2		9	19
Slovakia	Daň z pridanej hodnoty	2	-	10	19
Slovenia	Davka za dodano všednost	2	-	8.5	20
Spain	Impuesto sobre el Valor Añadido	3	4	7	16
Sweden	Mervärdesskatt (Moms)	3	-	6.12	25
UK	Value Added Tax	2	-	5	15

Source: National titles - Worldwide VAT and GST Guide; tax rates: European Commission.

In the process of the further harmonization of value added tax, the European Commission faced the problem of unifying the number of tax rates and the tax rate itself (or at least the tax brackets into which the tax rates should move). After difficult discussions, the basic model is considered a model with two types of tax rates: A basic rate and a reduced rate. A Member States that has applied the higher rates should refrain from this practice. Graph 1 shows the development of the variance of the tax rates in the European Union:

**Graph 1:** Genesis of the variance of standard and increased VAT rates in the European Union from 1973–2009



Source: Author's calculation.

The conclusions of the European Commission accent the need for reconciliation of the Member States' approaches to VAT rates and the tax base, as relations among the countries could be regarded as transparent and flexible. The current VAT rates are considered to be highly divergent and, relatively, very complicated. However, the basic principles remain simple: Goods and services that are subject to VAT are taxed at least 15%. Particular Member States may apply a reduced VAT rate on goods and services listed in a special list; the rate is no less than 5%.

These simple principles are complicated by a larger number of derogations that have been given to certain Member States during the negotiations preceding Directive No. 92/77/EEC, or the so-called Act of Accession<sup>8</sup>. The European Commission wants to contribute to simplification of the European tax legislation by setting a unified VAT rate for each Member State and by the removal of reduced rates. Reduced VAT rates are considered as minor and their overall benefits according to various studies do not meet the cost of their application in practice<sup>9</sup>.

The econometric model created in the above-mentioned study<sup>10</sup> also shows that the uniform rate will lead to a slight increase of consumer welfare in comparison with this current position; distortions in the functioning of the EU's internal market will be reduced and the simplification of the rules will lead to an overall reduction of the costs expended on harmonization of the trade.

The study does not assume complete deliverance from reduced rates in all market segments. It has been proved that in very specific cases, such as distinctive locally offered services, reduced VAT rates can stimulate economic growth by inducing a consumer demand for these locally offered services. Reduced VAT rates are also recommended for economic

<sup>7</sup> For details, see Structures of the Taxation Systems in the European Union (2005).

<sup>8</sup> These exceptions, which are contained in Chapter 5 (Articles Nos. 123 to 130) of Council Directive No. 2006/1112/EC, have been extended by Council Directive No. 2007/75/EC of 31/12/2010.

<sup>9</sup> For details, see the Study on Reduced VAT Applied to Goods and Services in the Member States of the European Union (2007).

<sup>10</sup> Ditto.

segments with an overwhelming dominance of a less skilled workforce<sup>11</sup>, where new jobs are being created continuously. At the same time, it is emphasized that other economic instruments (e.g. subsidies) can contribute to the achievement of environmental, social, cultural and economic objectives more efficiently than reduced VAT rates. The same conclusion is contained in the subsequent studies, which emphasize the need to take into account the local specifics and existence of appropriate economic instruments that are better focused on target groups when deciding on the existence of a single or multiple VAT rate<sup>12</sup>.

#### 2 Value added tax in the Czech Republic

Value added tax was introduced in the Czech Republic on 1/1/1993 with rates of 5% and 23%. Development of the rates was not precipitant, as illustrated in Table 2:

**Table 2:** Genesis of VAT rates in the Czech Republic from 1993–2009

Date of implementation	Reduced rate	Standard rate
1/1/1993	5	23
1/1/1995	5	22
1/5/2004	5	19
1/1/2008	9	19

Source: Act on VAT.

While the VAT rates in the Czech Republic changed infrequently, the text of the Act on Value Added Tax was amended several times, in particular with the entry of the Czech Republic into the European Union<sup>13</sup>. In the field of VAT rates, however, the Czech Republic has never had a problem with the fulfilment of the basic ES rules on tax rates, i.e. one standard rate at a minimum value of 15% and one or two reduced rates at a minimum value of 5%).

As resulting from the relevant provisions of community law, the EU limits Member States only in the number of rates and their minimum limits, which gives the Member States considerable discretion in determining the upper values of the VAT rates. This means that the Member States can follow their fiscal interests when they do not use the practice of minimum VAT rates. The freedom given in this field also affects the resulting tax quota of the country.

The discussed changes also illustrate these facts at the end of 2009 in the Czech Republic. Substantial changes to value added tax have been approved in the Czech Republic, beginning from 1/1/2010. They represent the outcomes of the autumn session of the Chamber of Deputies where three draft acts (parliamentary prints) were discussed, which were de-

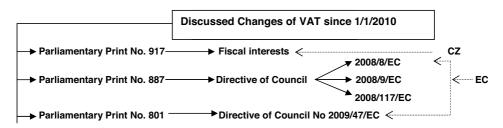
<sup>11</sup> These facts are also one of the reasons for the existence of Article 106 of Council Directive No. 2006/112/EC, which allows Member States to apply reduced rates to service-intensive work.

<sup>12</sup> See Bogetić, Hassan (1993) or Keen, Lockwood (2007).

<sup>13</sup> As at the date of the entry of the Czech Republic into the European Union, the new Act No. 235/2004 Coll., on Value Added Tax, came into effect. This law replaced Act No. 588/1992 Coll., on Value Added Tax, as amended by later regulations.

signed to change Act No. 235/2004 Coll., on value added tax as amended by later regulations (hereinafter, the Act on VAT), in a significant way. This is illustrated in Scheme 1:

**Scheme 1:** Discussed parliamentary prints related to the Act on VAT



Source: Author's calculation.

The scheme shows the differences between the draft acts. In Parliamentary Print No. 917, the Government reacts to the economic crisis. The next two draft acts are based on the obligation of implementation of EC legislature into Czech legislature. It was also the economic situation that led to the failure to adopt the third draft act.

The most visible change that was made was increasing the VAT rates. This process followed the admission of Act No. 362/2009 Coll.<sup>14</sup> (Parliamentary Print No. 917<sup>15</sup>). The act that was negotiated together with the act on the state budget of the Czech Republic for 2010<sup>16</sup> has changed 15 laws in total. The aim is to reduce the enormous decrease of the state budget revenues as the deficit of the budget in 2010 is thought to be CZK 160 billion (approximately EUR 6.15 billion). Increasing the standard VAT rate from 19% to 20% and the reduced rate from 9% to 10% should push up public budget revenues<sup>17</sup> by CZK 17.8 billion (approximately EUR 0.68 billion) and reduce the negative impacts of the economic crisis. Increasing VAT rates is explicitly within the competency of the Czech Republic and corresponds with its fiscal interests. It does not result from any rule of Community law<sup>18</sup>.

Contrary to Act No. 362/2009 Coll., other proposals for changes to the Act on VAT resulted from the amendment to Directive No. 2006/112/EC on the common system of value added tax.

Three Council directives have been included in Parliamentary Print 887, which was passed: Council Directive 2008/8/EC (change of the basic rule for determining the location of supply of services), Council Directive 2008/9/EC (laying down detailed rules for the refund of

<sup>14</sup> Act No. 362/2009 Coll., on Amendment to Certain other Acts, in connection with the draft Act on state budget of the Czech Republic for 2010, Title No. Five: The change of the Act on Value Added Tax.

<sup>15</sup> Parliamentary prints can be found on www.psp.cz

<sup>16</sup> Parliamentary Print No. 913.

<sup>17</sup> VAT yields, according to Act No. 243/2000 Coll., on the budgetary allocation of taxes, subsequently amended, form the revenues of the state budget as well as municipal and regional budgets.

<sup>18</sup> Due to Directive No. 2006/112/EC, the standard rate may not be less than 15% (Article 98) and the reduced rate may not be less than 5% (Article 99).

value added tax) and Council Directive 2008/117/EC (monthly submission of a recapitulative statement for the supply of services, possibility of submission by electronic file transfer). For the purposes of this paper dealing with the changes in VAT rates, this proposal is irrelevant; however, it shows the need to respond to the adoption of EC Directives. In the event it is rejected, the Czech Republic would be endangered by the direct effect of unimplemented directives that would be reflected in the number of lost legal processes (especially against the involved subjects in connection with the change in location for the supply of services).

This doctrine of direct effect will not occur, as Parliamentary Print 801 was rejected. Parliamentary Print 801 reacted to Council Directive 2009/47/EC (signed during the Czech chairmanship by Miroslav Kalousek, the former Czech Minister of Finance) that consisted in extension of the number of goods and services, which may underlie the reduced VAT rate. The text of the directive does not levy any new obligation on Member States; it merely enables us now to include the supply of books on all physical means of support, and restaurant and catering services under the reduced VAT rate. Directive 2009/47/EC also enables the use of permanently (from 1/1/2011) reduced rates for labour-intensive services in all five categories listed in Annex IV<sup>19</sup> to Directive 2006/112/EC.

However, the Czech Republic did not take advantage of these options due to the fear of revenue reduction in public budgets. Parliamentary Print 801 was rejected. The main reason for this is the estimated loss of CZK<sup>20</sup> 4.5 billion (approximately EUR 0.17 billion) in the event of a reduced rate levied on restaurant services. In the Czech Republic, VAT on restaurant services will paradoxically rise from 19% to 20%.

From 1/1/2010, the Czech Republic will levy the reduced rates only on window cleaning, housecleaning, domestic care services and the renovation and repair of private dwellings. The Czech Republic received permission to apply a reduced rate on the third service named by Council Decision 2006/774/EC.

## 3 Influence of VAT rates on price levels

In the previous text, the expected impact of VAT changes on public budgets is also quantified. There is another interesting circumstance of VAT changes – their effects on the price level. Price level is examined at the household level by the changes in the prices of final products (i.e. including VAT) contained in the consumer basket<sup>21</sup>. Although the change in inflation is the result of many different factors (some of them act in a contradictory way), it is clear that the increase of VAT rates may – ceteris paribus – lead to an increase of the price level.

<sup>19</sup> This annex has been repealed; the services listed have been shifted to Annex III. Therefore, the limitation of the possibility to levy the reduced VAT rate only until 31/12/2010 has been cancelled.

<sup>20</sup> Source: Explanatory report on the draft act, see www.psp.cz

<sup>21</sup> According to the international classification of COICOP, the consumer basket in the Czech Republic is sorted into 14 divisions, 58 groups and 157 classes. On the whole, it contains about 730 items.

#### 3.1 Definition of the consumer basket in the Czech Republic

A consumer basket is a representative group of goods by which the price or inflation is measured at the macroeconomic level. According to the Czech Statistical Office, the statistical measurement of inflation is based on measuring the net price changes via consumer price indices. Price indices compare the price level of a selected basket of representative goods and services in the two time periods under comparison. The weight (or importance) attributed to the particular price representatives in the consumer basket, corresponds to the proportion of the certain type of consumption which is represented by the particular price representatives on the total household consumption<sup>22</sup>.

The consumer basket contains food goods (food, beverages and tobacco), non-food goods (clothing, furniture, household goods, drugstore and small miscellaneous goods, goods for transportation and leisure time, personal care goods etc.) and services (repair, housing, household operations, health, social care, transport, leisure time, education, catering and accommodation, personal care, and finance).

A consumer basket is compiled on the basis of the statistical surveys, which play an important role in social statistics. These surveys place high demands on the respondents and on professional, financial and human resources. In the Czech Republic, they are also a part of the Household Budget Survey and are carried out continuously<sup>23</sup>.

Revisions of the consumer basket in the Czech Republic proceed approximately every five years; the last revision was in the year 2005. During these revisions, the weights of particular items are reviewed; this means their share in total household consumption. The current structure of the consumer basket in the Czech Republic (on 1/1/2010) has approximately 730 items<sup>24</sup>.

#### 3.2 The role of VAT in the consumer basket

The procedure of examining the above-mentioned relationship involves a comprehensive analysis of all items included in the consumer basket and their subsequent classification into groups according to particular tax rates, i.e. either into the group of goods and services, which is liable to a standard rate of 19% (on 31/12/2009), or into the group of goods and services, which is liable to a reduced rate of 9% (also on 31/12/2009). The third group of examined items of the consumer basket consists in goods and services that are exempted from value added tax (so-called exempt supplies).

<sup>22</sup> Resource: Czech Statistical Office [online].

<sup>23</sup> In most EU Member States, such investigations are carried out periodically, mostly after 4-5 years, and they have considerable scope.

<sup>24</sup> Goods (goods and services) that are monitored in the Household Budget Survey are classified according to the international classification of COICOP (Classification of Individual Consumption by Purpose). This classification is one of the four classifications (also with COPNI, COPPA, COFOG) which were approved by the UN Statistical Commission in 1999 and intended for use in the system of national accounts.

First, it is necessary to proceed to the analysis of the items included in the consumer basket that was valid on 1/1/2009, according to the basic classification of the sections. Each item is compared to the latest wording of the Act on VAT and on the basis of this comparison the classification of items by VAT rates is performed. This assignment represents the result of the author's own analysis. For better clarity, the data are grouped into sections and the exceptions deviating from the prevailing rates are emphasized.

#### 01. Food and soft drinks

In this section, all items are subject to the reduced VAT rate of 9%. The weight of the section is 162.634716.

#### 02. Alcoholic beverages, tobacco

All items in this section are subject to the 19% standard VAT rate. The weight of the section in the consumer basket is 81.720181.

#### 03. Clothing and footwear

In this section, almost<sup>25</sup> all of the items are subject to the 19% VAT rate. The weight of the section in the consumer basket is 52.427432.

#### 04. Housing, water, electricity, fuel

Less than half of the items in this section are subject to the 19% VAT rate. The exception in the rent which is exempted from the tax (weight proportion is 133.244889). Water supply, sewerage, and repair of dwellings which are subject to the reduced VAT rate (weight percentage is 12.116571). The weight of the entire section is 248.291765.

#### 05. Furnishings, household equipment, repairs

In this section, most items falls under the standard 19% VAT rate. Some exceptions are the services of household help and childcare, which are subject to reduced VAT rate (the weight proportion is 0.65752). The weight of the entire section is 58.055496.

#### 06. Health

Medicines and medical supplies are subject to a 9% VAT rate (the weight percentage is 12.902297). Health care is exempt from VAT (the weight proportion is 4.18047). The weight of the entire section is 17.86422.

#### 07. Transportation

Rent and highway signs are exempt from VAT<sup>26</sup> (the weight proportion is 1.887012). Air transport and domestic transportation, including luggage is taxed at the reduced VAT rate (the weight proportion is 2.310935). Other items are subject to the standard VAT rate. The weight of the entire section is 114.095481.

#### 08. Post and telecommunications

Postage and postal services are exempt from VAT (the weight proportion is 0.745052). Other items are subject to the standard VAT rate. The weight of the entire section is 38.732462.

#### 09. Recreation and culture

A reduced VAT rate is applied to flowers, pets, tickets to sport events, admission to the theatre, print media and books. Recreation was also included due to the prevalence of accommodation services, which are subject to a reduced VAT rate (the weight percentage is 58.567503). The weight of the entire section is 98.657185.

<sup>25</sup> The exception is baby nappies, taxed at a reduced VAT rate.

<sup>26</sup> Intra-community transportation is also exempt.

#### 10. Education

Almost all of the items are exempt from VAT. The total weight of the section is 6.178061.

#### 11. Catering and accommodation

Accommodation is subject to a reduced VAT rate (the weight proportion is 6.617551). Other items, in the absolute majority of cases, fall under the standard VAT rate. The weight of the entire section is 58.385787.

#### 12. Other goods and services

Insurance, financial services and other services defined in this section fall under the exempt supplies (the weight percentage is 14.351269). Other items are subject to the standard VAT rate. The weight of the entire section is 62.957214.

Table 3 gives the VAT rates and associated values of the particular weight proportions of the items included in the consumer basket. The sum of the appropriate items proved that the largest share of the consumer basket consists in items burdened with the standard VAT rate; this share is 57.98%. The reduced VAT rate is represented in the consumer basket by 25.96%. Exempt supplies make up approximately 16% of the total weight of the consumer basket. These supplies, however, do not play any role in changes of VAT rates because their "tax rate" is zero. Consequently, the hypothetical "average" household consumes commodities burdened with different VAT rates and commodities exempt from VAT in this observed proportion.

**Table 3:** Weight proportions of VAT rates of the items included in the consumer basket

Rates	Weight proportion	Weight proportion in %
Exempt supplies	160,586753	16.06
9%	259,611014	25.96
19%	579,802233	57.98
Total	1000,000000	100.00

Source: Author's calculation.

## 4 Discussion: Impacts of changes in VAT rates on households

For correct interpretation of the impacts of value added tax it is essential to perform an initial analysis of the impact of income on the demanded quantity of goods and then to analyse the influence of the price on the demanded quantity of goods.

The first analysis is based on the change in income of the taxpayer (his/her budget restrictions). According to this analysis and assuming constant prices, goods can be divided into normal and inferior. A relation valid for normal goods is that the quantity of purchased goods increases when the income grows. For inferior goods, there is an inverse relationship. In the graphic analysis, a balance can be seen in only two markets when using the income expansion path (IEP). Three situations may arise – both goods are normal; both goods are inferior; one item is normal and the other is inferior. Movement along the IEP curve is caused by the income effect, i.e. also by the income effect of taxation<sup>27</sup>.

<sup>27</sup> For details, see Soukupová (1998) and Stiglitz (1997).

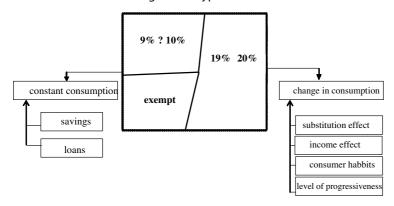
The second analysis – analysis of the price impact on the demanded quantity of goods – is based on changes in prices of the goods. These changes also turn the marginal rate of substitution in exchange. The marginal rate of substitution in exchange expresses how many units of item X the taxpayer may receive when he/she abandons the consumption of one unit of item Y. Changes in prices represent the main factor that affects the individual demand. This situation can be illustrated by a price consumer curve. Its form reflects the effect that may occur – the income effect or the substitution effect. While the substitution effect is always negative, the income effect varies for different types of goods – normal or inferior.

Regarding the prevalence of items that are subject to the standard VAT rate, it can be stated that the change of the standard rate (increase or decrease) will bring a major change of the taxpayer's behaviour. A reduced VAT rate is applied to goods and services that are supported by the state due to their social impacts. These goods and services represent necessary goods whose consumption may hardly be given up by the taxpayer. That is also why the change of the reduced VAT rate will not bring about a fundamental change in taxpayer's behaviour. On the contrary, it can be said that in the case of goods and services that are subject to the standard VAT rate, the taxpayer can easily give up their consumption<sup>28</sup>.

It can also be assumed that if the taxpayer's (or household's) income increases, the amount of purchased goods and services burdened with a 19% VAT rate will also grow and the tax burden of the taxpayer will increase. In this case, VAT revenues will also grow, but at a lower rate than the increase of income.

As already mentioned, this paper arises from the original author's analysis, which classifies the consumption of a hypothetical household. It is possible that in real economics, there is no real household that corresponds with this hypothesis. The issue is outlined primarily in theory and its practical verification deserves follow-up studies. The effects of VAT changes on the consumer basket of a hypothetical household are shown in Scheme 2:

**Scheme 2:** Effects of VAT rate changes on a hypothetical household in the Czech Republic



Source: Author's calculation.

<sup>28</sup> It is necessary to mention the regressive character of VAT contained in certain commodities, see e.g. Svátková (2007).

#### Conclusion

Value added tax is the only general consumption tax permitted in EU Member States. Although it is the most harmonized tax due to ensuring the free movement of goods and services, it leaves the Member States with flexibility in certain areas of national VAT structure. In the field of VAT rates, the Member States have to apply a standard rate of at least 15% and they can apply one or two reduced rates of at least 5%. The upper limit of both types of rates is unlimited. This gives a certain space to the Member States to follow their own fiscal interests.

The legislative form of VAT in particular Member States can be considered as a conglomerate of national and community requirements. The example of the Czech Republic, which has increased the reduced and standard VAT rate since 1/1/2010 can illustrate the different reasons and causes of the legislative changes in this tax, which is the most important tax in the EU. These reasons may both derive from national interests, both from the obligation to respect Community law. However, these interests may not always be consistent.

Changes in VAT rates will be reflected in changes of public budget revenues as well as having a relevant impact on the price level, which is determined in accordance with the consumer basket of the households. In the Czech Republic, about 730 goods and services are monitored, while 57.98% is subject to the standard VAT rate, 25.96% is burdened with the reduced VAT rate and 16.06% is exempt from VAT. A change of consumer expenditures and, due to this, the change of the VAT portion in household expenditures, will depend (except for the change of the VAT rate itself) on consumer habits, the degree of VAT progression in particular types of households and on other factors.

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